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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/993,229	11/19/2001	Philippe Bernadat	10012452-1	6889

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HEWLETT-PACKARD COMPANY  
Intellectual Property Administration  
P.O. Box 272400  
Fort Collins, CO 80527-2400

EXAMINER
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TANG, KUO LIANG J

ART UNIT	PAPER NUMBER
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2191

DATE MAILED: 05/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/993,229	<b>Applicant(s)</b> BERNADAT ET AL.	
	<b>Examiner</b> Kuo-Liang J Tang	<b>Art Unit</b> 2191	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 24 November 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

1. This Office Action is in response to the amendment filed on 11/24/2004.

The priority date for this application is 11/19/2001.

***Response to Arguments***

2. Applicant's arguments, see page 6, filed 11/24/2004 with respect to claims 1-15 have been fully considered and are persuasive. However, upon further consideration, a new ground(s) of rejection is made in view of Gerard et al. (US Patent No. 5,974,428).

Claims 16-20 have been added.

Claims 1-20 are pending and have been examined.

Claims 1-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beadle et al., US Patent No. 6,637,025 (hereinafter Beadle), in view of Gerard et al., US Patent No. 5,974,428 (hereinafter Gerard).

Claims 16-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fresko et al., US Patent No. 5,966,702 (hereinafter Fresko), in view of Gerard.

*In the Amendment And Response, Applicants argue that:*

A) In the previous Office Action dated 8/25/2004 page 2, Section 2, "Claim 1 is rejected under 35 U.S.C. 103(a) as being anticipated by Beadle et al., US Patent No. 6,637,025 (hereinafter Beadle)" was a typo (See page 6, 2<sup>nd</sup> paragraph).

B) As for independent claim 1, Applicants primarily argue that Beadle does not teach a mapping of substitute class name. (see page 6, 4<sup>th</sup> paragraph).

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**Examiner's response:**

A) The examiner agrees it is a type. It should be correct as "Claims 1-15 are rejected under 35 U.S.C. 102(e) as being anticipated by Beadle et al., US Patent No. 6,637,025 (hereinafter Beadle)".

B) The examiner agrees that Beadle does not teach a mapping of substitute class name. However, Gerard et al. (US Patent No. 5,974,428) teaches a mapping of substitute class name (E.g. see col. 5:19-32).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beadle et al., US Patent No. 6,637,025 (hereinafter Beadle), in view of Gerard et al., US Patent No. 5,974,428 (hereinafter Gerard).

As Per Claim 1, Beadle teaches provides a process in a data processing system for executing bytecodes. The bytecodes are contained in a JAVA archive file along with just in time compiling instructions. (E.g. see Abstract and associated text). In that Beadle discloses a computer-implemented method for extending functionality of a first set of classes and methods in an application hosted by a computing arrangement, comprising:

“establishing a mapping of original class names of classes in the first set (E.g see col. 5:64- col. 6:35, e.g. loading of a class) to corresponding substitute class names of classes in a second set (E.g see col. 5:64- col. 6:35, e.g. loading of new classes), wherein the classes in the second set change the functionality of the classes in the first set (E.g see col. 5:64- col. 6:35, e.g. “special instructions for not JIT'ing certain classes or methods”);” The mapping is inherent because the new class is an extension of the old class otherwise the classloader can not load the new class without error occurs.

“in response to loading a class file of a class in the first set, replacing in the class file original class names with corresponding substitute class names (E.g see col. 5:64- col. 6:35, e.g. “loading of new classes”),”; and

“instantiating classes referenced by the substitute class names in lieu of classes referenced by the original class names (E.g see col. 6:2, e.g. initialized)”.

Beadle does not explicitly disclose teach a mapping of substitute class name. However, Gerard in an analogous art teaches “mapping of substitute class name”. (E.g. see col. 5:19-32). Therefore, it would have been obvious to incorporate the teaching of Gerard into the teaching of Beadle to map substituted class name. The modification would have been obvious because one of ordinary skill in the art would have been motivated to program a loader to map old class names to new class names or to substitute one class name for another class name (E.g. see col. 5:29-32).

As Per claim 2, the rejection of claim 1 is incorporated and further Beadle teaches:

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“establishing a mapping of original method names of the first set to corresponding substitute method names of methods in a second set, wherein the methods in the second set change the functionality of the methods in the first set; in response to loading a class file of a class in the first set, replacing in the class file original methods names with corresponding substitute method names; and invoking methods referenced by the substitute method names in lieu of methods referenced by the original method names”  
(Again, see as noted above of Claim 1).

As Per claim 3, the rejection of claim 2 is incorporated and further Beadle teaches:

“caching (E.g. see col. 3:36, cache memory) on the computing system the class file having the substitute class names and substitute method names”.

As Per claim 4, the rejection of claim 3 is incorporated and further Beadle teaches:

“replacing the original class names with the substitute class names in a constant pool within the class file, and changing in the class file method invocation bytecodes (E.g see col. 6:14-17) from references to original methods to references to substitute methods”.

As Per claim 5, the rejection of claim 4 is incorporated and further Beadle teaches:

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“wherein the classes in the first set are selected ones of standard Java API classes, and the classes in the second set change the functionality of the selected ones of the standard Java API classes” (E.g. see col. 5:64- col. 6:35, where the new class is an extension of the original Java class, therefore, it’s a Java class also).

As Per claim 6, the rejection of claim 5 is incorporated and further Beadle teaches:

“wherein the selected ones of the standard Java API classes include selected input and output Java API classes”. (E.g. see FIG. 3, “FCCF File” 306 and FLAT FILE” 308 and associated text, e.g. col. 6:59 – col. 7:16).

As Per claim 7, the rejection of claim 1 is incorporated and further Beadle teaches:

“caching (E.g. see col. 3:36, cache memory) on the computing system the class file having the substitute class names and substitute method names (E.g. see FIG. 2, CLASS LOADER 202 and associated text).

As Per Claim 8, is the apparatus claim corresponding to the method claim 1 and is rejected under the same reason set forth in connection of the rejection of claim 1.

As Per Claim 9, is the application program claim corresponding to the method claim 1 and is rejected under the same reason set forth in connection of the rejection of claim 1.

As per Claims 10-15, the rejection of claim 9 are incorporated and are rejected under the same reason set forth in connection of the rejection of claims 2-7 respectfully.

5. Claims 16-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fresko et al., US Patent No. 5,966,702 (hereinafter Fresko), in view of Gerard.

As Per claim 16, Fresko teaches a method for processing a downloadable application program, comprising:

“downloading the downloadable application program from a server system to a client system, wherein the downloadable application program includes a class file” (E.g. see col. 3:41-54);

“executing the downloadable application program on the client system” (E.g. see FIGURE 1, client 102 and associated text);

“loading a class file in response to execution of the downloadable application program” (E.g. see col. 3:42-64); and

“during execution of the downloadable application program resolving each reference to a substitute class name in the class file” (E.g. see col. 2:62 to col. 3:15).

Fresko does not explicitly disclose teach mapping and replacing of substituted class name. However, Gerard in an analogous art teaches “mapping and replacing of substitute class name”. (E.g. see col. 5:19-32). Therefore, it would have been obvious to incorporate the teaching of Gerard into the teaching of Fresko to map substituted class name. The modification would have been obvious because one of ordinary skill in the art

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would have been motivated to program a loader to map old class names to new class names or to substitute one class name for another class name (E.g. see col. 5:29-32).

As Per claim 17, the rejection of claim 16 is incorporated and further Fresko and Gerard teach:

“caching the class file in a class cache on the client system after the replacing step” (E.g. see Gerard col. 5:33-50 and col. 6:47-57).

As Per claim 18, the rejection of claim 16 is incorporated and further Fresko and Gerard teaches:

“mapping data from the server system to the client system along with the downloading of the downloadable application program” (see as noted above of Claim 16, e.g. see Gerard col. 5:19-32).

As Per claim 19, the rejection of claim 16 is incorporated and further Fresko and Gerard teach:

“configuring the client system with the mapping data prior to the downloading of the downloadable application program” (see as noted above of Claim 16, e.g. see Gerard col. 5:19-32).

As Per claim 20, the rejection of claim 16 is incorporated and further Fresko and Gerard teach:

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“statically configuring a class loader with the mapping data prior to downloading the downloadable application program” (see as noted above of Claim 16, e.g. see Gerard col. 5:19-32).

### *Conclusion*

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kuo-Liang J Tang whose telephone number is (571) 272-3705. The examiner can normally be reached on 8:30AM - 7:00PM (Monday – Thursday). Any inquiry of a general nature or relating to the status of this application should be directed to the **TC 2100 Group receptionist: 571-272-2100**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, Tuan Dam can be reached on (571) 272-3695. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*Huo-Liang J. Tang*

Software Engineer Patent Examiner

ANTONY NGUYEN-BA  
PRIMARY EXAMINER